

Having thus described the invention, what is claimed is:

- 1 1. A method for providing flotation to a wing of an agricultural seeder relative to the
2 ground, comprising the steps of:
 - 3 a) providing a wheel-supported main frame adapted to be removably affixed
4 to a tractor for movement along the ground in a direction of travel;
 - 5 b) providing a first elongated wing with an inner end and an opposing outer
6 end, the first wing having a longitudinal axis generally perpendicular to the
7 direction of travel and a center point along the longitudinal axis generally
8 equidistant from the inner and outer ends;
 - 9 c) providing a first plurality of seeders affixed to the first wing and generally
10 regularly spaced along the longitudinal axis thereof;
 - 11 d) providing a first elongated support arm pivotally affixed at one end to the
12 main frame and at the other end to the center point of the first wing;
 - 13 e) providing a first hydraulic cylinder interconnecting the first wing and the
14 main frame such that the first cylinder can raise the first wing to a
15 transport position and lower the first wing to a working position in contact
16 with the ground;
 - 17 f) lowering the first wing to the ground by activating the first hydraulic
18 cylinder; and
 - 19 g) locking the first hydraulic cylinder in the lower position whereby the first wing
20 floats about the point at which the first support arm is pivotally affixed to
21 the center point of the first wing.
- 1 2. The method of claim 1, further including the steps of:
 - 2 a) providing a second elongated wing with an inner end and an opposing
3 outer end, the second wing having a longitudinal axis generally
4 perpendicular to the direction of travel and a center point along the
5 longitudinal axis generally equidistant from the inner and outer ends;
 - 6 b) providing a second plurality of seeders affixed to the second wing and

- 7 generally regularly spaced along the longitudinal axis thereof;
- 8 c) providing a second elongated support arm pivotally affixed at one end to
- 9 the main frame opposite the point at which the first support arm is affixed
- 10 and at the other end to the center point of the second wing such that the
- 11 first and second wings are on opposite side of the main frame;
- 12 d) providing a second hydraulic cylinder interconnecting the second wing and
- 13 the main frame such that the second cylinder can raise the second wing to
- 14 a transport position and lower the second wing to a working position in
- 15 contact with the ground;
- 16 e) lowering the second wing to the ground by activation of said second
- 17 hydraulic cylinder; and
- 18 g) locking the second hydraulic cylinder the lower position whereby the
- 19 second wing floats about the point at which the second support arm is
- 20 pivotally affixed to the center point of the second wing..

1 3. The method of claim 2, including the step of:
2 activating the first and second hydraulic cylinders at the same time to raise and
3 lower the first and second winds in substantial unison.

1 4. An agricultural seeder comprising:
2 a wheel-supported main frame with first and second opposing lateral sides and
3 adapted to be removably affixed to a tractor for movement along the ground in a
4 direction of travel;
5 first and second elongated wings each with an inner end and an opposing outer
6 end and each having a longitudinal axis generally perpendicular to the direction of travel
7 and a center point along the longitudinal axis generally equidistant from the respective
8 inner and outer ends;
9 a plurality of seeders affixed to the first and second wings and generally regularly
10 spaced along the longitudinal axes thereof;
11 a first elongated support arm pivotally affixed at one end to the first lateral side of

12 the main frame and at the other end to the center point of the first wing;
13 a second elongated support arm pivotally affixed at one end to the second lateral
14 side of the main frame and at the other end to the center point of the second wing;
15 a first hydraulic cylinder interconnecting the first wing and the main frame such
16 that activation of the first cylinder can raise the first wing to a transport position and
17 lower the first wing to a working position in contact with the ground;
18 a second hydraulic cylinder interconnecting the second wing and the main frame
19 such that activation of the second cylinder can raise the second wing to a transport
20 position and lower the second wing to a working position in contact with the ground,
21 whereby lowering and locking; and
22 both the first and second hydraulic cylinders having a lock thereon to hold the
23 respective cylinder in the working position whereby when in the working position, the
24 wings float relative to the ground.

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1 5. The seeder of claim 4, further including:
2 an hydraulic control system connected to the first and second hydraulic cylinders
3 to manage the activation of the cylinders.

1 6. In an agricultural seeder having a main frame with first and second opposing
2 lateral sides and first and second wings pivotably attached thereto and a hydraulic
3 control system that pivots the wings between a raised transport position and a lowered
4 operating position in contact with the ground, the improvement comprising:
5 the first and second wings, each with a longitudinal axis and a center point along
6 their respective longitudinal axes, are pivotably attached to respective lateral sides of
7 the main frame by a structure including first and second substantially identical support
8 arms each having a first end pivotably attached to the main frame and an opposing
9 second end pivotably attached to the respective wing at the center point such that the
10 wings float relative to the ground.

- 1 7. The improvement of claim 6, further including:

2 a plurality of seeders affixed to the first and second wings and generally regularly

3 spaced along the longitudinal axes thereof.
 - 1 8. The improvement of claim 7, wherein:

2 the hydraulic control system includes a first hydraulic cylinder interconnecting the

3 first wing and the main frame such that activation of the first cylinder can raise the first

4 wing to a transport position and lower the first wing to a working position in contact with

5 the ground.
 - 1 9. The implement of claim 8, wherein:

2 the hydraulic control system includes a second hydraulic cylinder interconnecting

3 the second wing and the main frame such that activation of the second cylinder can

4 raise the second wing to a transport position and lower the second wing to a working

5 position in contact with the ground.
 - 1 10. The improvement of claim 9, wherein:

2 both the first and second hydraulic cylinders have a lock thereon to hold the

3 respective cylinder in the working position whereby when in the working position, the

4 wings float relative to the ground.